In the claims:

1. (original) A method for distributing routing information in an optical virtual private network, the method comprising:

establishing an initial bootstrap topology connecting a plurality of nodes in the optical virtual private network; and

distributing the routing information over the initial bootstrap topology.

2. (original) The method of claim 1, wherein establishing an initial bootstrap topology connecting a plurality of nodes in the optical virtual private network comprises:

determining a relative priority for each of the plurality of nodes in the optical virtual private network; and

establishing, for each node having at least one lower priority peer node, a communication connection from the node to one and only one lower priority peer node.

3. (original) The method of claim 2, wherein determining a relative priority for each of a plurality of nodes in the optical virtual private network comprises:

determining an IP address for each of the plurality of nodes in the optical virtual private network; and

determining the relative priority for each of the plurality of nodes based upon the IP address.

4. (original) The method of claim 3, wherein the relative priority for each of the plurality of nodes is inversely related to the IP address such that the lowest IP address represents the highest priority and the highest IP address represents the lowest priority.

5. (original) The method of claim 2, wherein establishing a communication connection from the node to one and only one lower priority peer node comprises:

selecting a lower priority peer node from among the at least one lower priority peer nodes; and

establishing the communication connection to the selected lower priority peer node.

6. (original) The method of claim 5, wherein selecting a lower priority peer node from among the at least one lower priority peer nodes comprises:

determining a cost for each of the at least one lower priority peer nodes; and

selecting from among the at least one lower priority peer nodes the lower priority peer node having the lowest cost.

7. (original) The method of claim 6, wherein determining a cost for each of the at least one lower priority peer nodes comprises one of:

determining the cost for each of the at least one lower priority peer nodes based upon hop count information;

determining the cost for each of the at least one lower priority peer nodes based upon link state information; and

determining the cost for each of the at least one lower priority peer nodes based upon actual costs for establishing communication connections to each of the at least one lower priority peer nodes.

8. (original) A device for distributing routing information in an optical virtual private network, the device representing one of a plurality of nodes in the optical virtual private network, the device comprising:

peer discovery logic operably coupled to identify a number of peer nodes in the optical virtual private network;

prioritization logic operably coupled to determine a relative priority for each of the plurality of nodes in the optical virtual private network; and

connection establishment logic operably coupled to establish a communication connection to one and only one lower priority peer node provided a lower priority peer node exists.

9. (original) The device of claim 8, wherein the peer discovery logic comprises:

authenticated auto-discovery logic for automatically discovering and authenticating the peer nodes.

10. (original) The device of claim 8, wherein the prioritization logic comprises:

logic for determining an IP address for each of the plurality of nodes in the optical virtual private network; and

logic for determining the relative priority for each of the plurality of nodes based upon the IP address.

11. (original) The device of claim 10, wherein the relative priority for each of the plurality of nodes is inversely related to the IP address such that the lowest IP address represents the highest priority and the highest IP address represents the lowest priority.

12. (original) The device of claim 8, wherein the connection establishment logic comprises:

logic for selecting a lower priority peer node from among the at least one lower priority peer nodes; and

logic for establishing the communication connection to the selected lower priority peer node.

13. (original) The device of claim12, wherein the logic for selecting a lower priority peer node from among the at least one lower priority peer nodes comprises:

logic for determining a cost for each of the at least one lower priority peer nodes; and

logic for selecting from among the at least one lower priority peer nodes the lower priority peer node having the lowest cost.

14. (original) The device of claim 13, wherein the logic for determining a cost for . each of the at least one lower priority peer nodes comprises one of:

logic for determining the cost for each of the at least one lower priority peer nodes based upon hop count information;

logic for determining the cost for each of the at least one lower priority peer nodes based upon link state information; and

logic for determining the cost for each of the at least one lower priority peer nodes based upon actual costs for establishing communication connections to each of the at least one lower priority peer nodes.

15. (currently amended) A communication system comprising a plurality of nodes ~~node~~ interconnected over an optical communication network to form an optical virtual private network, wherein the plurality of nodes establish an initial bootstrap topology and distribute routing information over the initial bootstrap topology.

16. (original) The communication system of claim 15, wherein each node determines a relative priority for each of the plurality of nodes and establishes a communication connection to one and only one lower priority peer node if such a lower priority peer node exists.

17. (original) The communication system of claim 16, wherein the relative priority for each of the plurality of nodes is based upon an IP address for each of the plurality of nodes.

18. (original) The communication system of claim 17, wherein the relative priority for each of the plurality of nodes is inversely related to the IP address such that the lowest IP address represents the highest priority and the highest IP address represents the lowest priority.

19. (original) The communication system of claim 16, wherein each node selects a lower priority peer node from among the at least one lower priority peer nodes and establishes the communication connection to the selected lower priority peer node.

20. (original) The communication system of claim 19, wherein each of the at least one lower priority peer nodes is associated with a cost, and wherein each node selects the lower priority peer node having the lowest cost.

21. (original) The communication system of claim 20, wherein the cost is determined according to one of:

hop count information;

link state information; and

actual cost for establishing a communication connection.

22. (original) A computer program for distributing routing information by a node in an optical virtual private network, the computer program comprising:

peer discovery logic programmed to identify a number of peer nodes in the optical virtual private network;

prioritization logic programmed to determine a relative priority for each of the plurality of nodes in the optical virtual private network; and

connection establishment logic programmed to establish a communication connection to one and only one lower priority peer node provided a lower priority peer node exists.

23. (original) The computer program of claim 22, wherein the peer discovery logic comprises:

authenticated auto-discovery logic for automatically discovering and authenticating the number of peer nodes.

24. (original) The computer program of claim 22, wherein the prioritization logic comprises:

logic for determining an IP address for each of the plurality of nodes in the optical virtual private network; and

logic for determining the relative priority for each of the plurality of nodes based upon the IP address.

25. (original) The computer program of claim 24, wherein the relative priority for each of the plurality of nodes is inversely related to the IP address such that the lowest IP address represents the highest priority and the highest IP address represents the lowest priority.

26. (original) The computer program of claim 22, wherein the connection establishment logic comprises:

logic for selecting a lower priority peer node from among the at least one lower priority peer nodes; and

logic for establishing the communication connection to the selected lower priority peer node.

27. (original) The computer program of claim 26, wherein the logic for selecting a lower priority peer node from among the at least one lower priority peer nodes comprises:

logic for determining a cost for each of the at least one lower priority peer nodes; and

logic for selecting from among the at least one lower priority peer nodes the lower priority peer node having the lowest cost.

28. (original) The computer program of claim 27, wherein the logic for determining a cost for each of the at least one lower priority peer nodes comprises one of:

logic for determining the cost for each of the at least one lower priority peer nodes based upon hop count information;

logic for determining the cost for each of the at least one lower priority peer nodes based upon link state information; and

logic for determining the cost for each of the at least one lower priority peer nodes based upon actual costs for establishing communication connections to each of the at least one lower priority peer nodes.

29. (original) The computer program of claim 22 embodied in a computer readable medium.

30. (original) The computer program of claim 22 embodied in a data signal for conveyance over a communication medium.